Faculty Working Papers

INTERNATIONAL TRADE AND ABORTIVE GROWTH IN THAILAND AND INDO-CHINA

Rajendra K. Sharma, Visiting Professor of Economics

#494

College of Commerce and Business Administration
University of Illinois at Urbana-Champaign

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Summary:

The purpose of this paper is to show, through two case studies, that the transmission of growth impulses from the export sector to the rest of the economy might be weakened by a number of factors stemming from the initial resource endowment of the economy and the relative elasticities of supply of these resources. The consequences might be described as arrested or abortive growth. The case studies pertain to two countries in Southeast Asia, Thailand and former (French) Indo-China, covering the period of their entrance into world commerce in the second half of the nineteenth century to the Second World War.

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INTERNATIONAL TRADE AND ABORTIVE GROWTH IN THAILAND AND INDO-CHINA*

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INTRODUCTION

The classical explanation of arrested growth in backward economies is that they are prisoners within a vicious circle of poverty and low capacity to save and invest. This argument is based on the premise that at low levels of per capita income people are too poor to save and invest much and this low rate of investment results in the low rate of growth in total national income. Backwardness is thus explained in terms of limitations of capital supply.

This explanation overlooks two crucial points. First, capital investment in this economy may as well come from rich investors abroad. Second, income distribution in backward economies is very unequal, with much of total income going to the few rich for whom capacity to save is no constraint whatsoever. One is thus left to the problem of explaining why a foreigner does not invest in a backward economy and why the indigenous elite choses to lavish its riches on conspicous consumption.

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A sociologist might, of course, claim that the latter phenomenon is due to the strange cultural values of the rich in backward economies and many economists would be inclined to accept this explanation since it relieves them of the necessity of looking for one themselves. However, it is surely the business of the economist to see whether economic behavior cannot be explained by economic motives before abdicating this function to a sociologist. We feel that the dissipation of potential savings by the rich in underdeveloped countries as well as the lack of extensive foreign investment are both due to a common cause, the narrowness of the domestic market. The narrowness of the market is in turn traceable not only to the low level of per capita income but to the pattern of income distribution with it and its lack of the middle class. The income distribution in turn reflects the initial factor endowments of the underdeveloped economies.

Given the significance of market stagnation as a barrier of growth, what would be the impact of an expanding external demand for exports? The purpose of this paper is to show, through two case studies, that the transmission of growth impulses from the export sector to the rest of the economy might be weakened by a number of factors stemming from the initial resource endowment of the economy and the relative elasticities of supply of these resources. The consequences might be described as arrested or abortive growth. The case studies pertain to two countries in Southeast Asia, Thailand and former (French) Indo-China, covering the period of their entrance into world commerce in the second half of the nineteenth century to the Second World War.

PART I - THAILAND

This section briefly portrays the economy of Thailand in 1855 and the pattern of economic development that came into being following its opening up to the world economy in that year. This is followed, in somewhat greater detail, by an analysis of the factors that accounted for the abortive growth of Thailand, despite many favorable features of the economy that should have led to induced economic growth.

Thai Economy in 1855

Thailand in 1855 provided the familiar features of a subsistence economy. Thus, the working population was wholly engaged in agriculture, with rice production covering nearly 95 percent of the cultivable land. Population at 5 or 6 million, with a density of 25-30 per square miles, was sparse in relation to available land resources. Each farmer produced rice sufficient to meet the requirements of his family. He had little incentive to produce beyond his requirements since there were few, if any, opportunities to exchange additional produce with other goods.

A study of the Thai economy before 1855 reveals that for many generations it had experienced little impulse towards change. This was due to the fact that there were hardly any pressures that might have induced adoption of alternatives in economic behavior or methods. It was indeed a self-sufficient economy at all levels. There was little or no trade between regions on account of inadequate and hence costly means of transportation. Moreover, each region was able to produce locally to its own requirements.

In the decades prior to 1855, and even as far back as 1620, there is evidence that rice was an export product but the trade was neither steady nor continuous.[1] It has been estimated by James Ingram that rice exports constituted a very low proportion of total production; the average ratio ordinarily did not exceed 2 or 3 percent. The activity of the government was of a restrictive nature, with public expenditure primarily intended for religious buildings and the maintenance of courts. The only form of public works which received some attention was the digging of canals for irrigation and as a means of transportation. It is thus clear that, before its exposure to the outside world in 1855, the Thai economy was "extraordinarily stable and insulated."

Opening to the World Economy

After 1855, the economy of Thailand became increasingly commercialized. From a basically barter and subsistence economy, it steadily moved towards greater use of trade and money exchange. This momentous change came in the wake of political situation that was prevalent in Southeast Asia at the time. The British appeared in Burma, while the French were pressing in Indo-China. The opening of China made it plain to the Thai ruling class that their isolation from the West could no longer be sustained. Soon after his accession to the throne in 1851, King Mongkut (Rama IV) became convinced that if Thailand was to survive as an independent nation,

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[1] According to Ingram, it varied with the weather, the state of the market, political and military conditions and the temper of the King. Cf. James C. Ingram, "Thailand's Rice Trade and the Allocation of Resources," in C. D. Cowan (ed.), The Economic Development of Southeast Asia (London, 1964), p. 102.

it must be prepared to live with the West and come into closer contact with the world economy. He, therefore, voluntarily removed some restrictions on trade in the first years of his reign and later in 1855, entered into negotiations with the British. These negotiations culminated in the signing of the Browning Treaty (1855) which swept away virtually all restrictions on exports and imports and plunged Thailand abruptly into the international economy as a free trade nation.

This momentous change came at a time when there was a strong upsurge in demand for rice in the world market, following major improvements in ocean transportation and the opening of the Suez Canal. As a result, a powerful economic force originating outside the Thai economy began to exert its influence on the structure and production in Thailand. A regular and rising demand for rice in the world market led to more and more specialization in one major crop--rice. The area planted in rice expanded leading to increasing rice exports after 1855. Unused land was cleared of jungle, canal network was extended and area under cultivation grew rapidly as is evident from the following table:[2]

TABLE I

Thailand: Area Under Cultivation

Year	Area under cultivation (Million rai)*
1850	6
1905-6	9
1925-23	17
1935-36	21
1950	35

*One rai = 0.16 hectares (0.4 acres).

[2]James C. Ingram, Economic Change in Thailand since 1850, California, 1954 (Stanford University Press, Stanford).

The rapid expansion of rice cultivation was made possible by the existence of abundant land, together with established right to claim, clear and cultivate such land. It was further facilitated by the release of a large number of men from the Corvee system[3] who readily turned to rice cultivation.

Although official estimates of total production of rice before 1907 are not available, such data as are available suggest a steady increase in production and export. The available data for rice exports are summarized in Table II below.

TABLE II

Thailand Rice Trade: Volume and Value, 1858-59 to 1955-59

Period	Average volume per year (000 piculs)[a]	Average value per year (000 Baht)	Average price per picul (Baht)
1857-59	990	-	-
1860-64	1,840	-	-
1865-69	1,630	-	-
1870-74	1,870	5,110	2.70
1875-79	3,530	10,110	2.90
1880-84	3,580	9,610	2.70
1885-89	5,320	15,080	2.80
1890-94	7,250	23,780	3.30
1895-99	8,000	36,410	4.60
1900-04	11,130	61,280	5.50
1905-09	14,760	81,020	5.50
1910-14	15,220	81,230	5.30
1915-19	15,790	108,140	6.90
1920-24	17,680	115,350	6.50
1925-29	23,390	169,690	7.20
1930-34	25,720	91,240	3.50
1935-39	25,370	94,570	3.70

[3]The "Corvee" represented a system of slavery and forced labor.

Table II cont.

Period	Average volume per year (000 piculs)[a]	Average value per year (000 Baht)	Average price per picul (Baht)
1940-44	13,250	99,320	7.50
1945-49	11,980	994,000 (2,000,000)*	80.00 (167)*
1950-54	22,700	2,385,000 (3,900,000)	105.00 (172)
1955-59	21,000	2,940,000	140.00

[a]One piculs = 60.0 kg (132.3 lb)

*Figures in parenthesis represent Baht values converted at the open market exchange rates. Beginning in 1955, use of an official rate for rice exports ceased, and a unitary exchange rate was adopted.

Source: James C. Ingram, "Thailand's Rice Trade and the Allocation of Resources," in C. D. Cowan, The Economic Development of Southeast Asia, 1964.

The figures averaged for five-year period to smoothen the year-to-year fluctuations show a steady increase in the physical volume of rice exports during most of the past century. After a slow and erratic increase up to 1870-74, the volume of rice exports rose to a peak of 25.7 million piculs in 1930-34. This figure marks a twenty-five fold increase in exports over probably the maximum in 1855; the average annual volume of exports during 1857-59 was 990,000 piculs. During the same period, population of Thailand increased only two-fold, from 5 or 6 million in 1850 to about 7.3 million in 1900 and 11.5 million in 1929. But inspite of an investible surplus of such a high magnitude, the Thai economy failed to generate economic progress. It is instructive, therefore, to analyze the factors which contributed to the abortive growth of the Thai economy.

Factors Impeding Economic Growth

Before going into the basic factors, one point that deserves to be noted is the geographic location of Thailand. The only sea port of the country (Bangkok) was far removed from the ocean highways then prevailing. Thai exports had, therefore, to incur additional transport cost for shipment to ports on the direct trade routes--Singapore and Hong Kong. Moreover, for the relatively short distance, Thai exports could not have access to large and cheap steamships. Consequently, shipment of rice to the export market had to be made in low-capacity, high-cost ferries or small ships. The price differential emanating from this additional transport cost appears to have been responsible for Burma (with Rangoon on the direct sea routes) pricing out Thailand rice in the world market.

A study of the destinational pattern of Thai rice reveals that bulk of it was exported to markets in Asia as can be seen from data assembled in Table III below.

TABLE III

Destination of Rice Exports, Selected Years

Year	China and Hong Kong	Singapore	Other Asia	Europe and all others	Total
1867	1,330	276	17	159	1,832
1875	2,420	1,140	--	360	3,920
1879	1,410	1,470	--	1,150	4,030
1887	5,130		--	1,050	6,630
1890	4,700	1,990	160	1,240	8,090
1900-04 (av)	5,950	4,080	53	1,030	11,130
1907/08	7,137	5,086	90	2,147	14,460(*)
1911/12	7,545	5,975	310	3,720	17,550(*)
1923/24-1927/28	9,375	7,868	3,051	2,341	22,645(*)

Table III cont.

Year	China and Hong Kong	Singapore	Other Asia	Europe and all others	Total
1932/33	11,432	7,130	5,545	3,760	27,867
1939/40	6,085	11,869	6,700	6,882	31,537
1954	1,915	3,565	9,370	1,880	16,730

Note: Total for these years do not agree with other series as sources for the two series differ.

Source: James C. Ingram, Economic Change in Thailand (Stanford University Press, Stanford, California, 1954).

The markets in Asia, earlier fed by Burma, were abondoned by it in favor of more gainful markets in Europe, in the wake of the opening of the Suez Canal. Thus the locational disadvantage of Bangkok port deprived Thailand from taking full advantage of the major spurt in demand for rice in the world market. It had to contend itself with residual markets in Asia, left over by Burma. Thailand had another handicap, compared to other major rice exporters, Burma and Indo-China. These countries were members of an empire and had a sheltered European market, while Thailand experienced the difficulties of an independent producer in a world of preferential marketing.

In spite of this handicap, the gain to the Thai economy from the spurt in demand for rice was momentous in that the volume of rice exports registered a 25-fold increase over a period of about 60 years, while its population during the same period increased by a mere 2-fold. How is it then that this major spurt in export did not lead to induced economic growth in Thailand?

In the first place, it is necessary to study the manner in which the farmer responded to an externally induced demand for rice. Now, the

response of the farming community to a spurt in demand for its product depends on the relative elasticity of factor endowments of the country. In Thailand, the land resource was abundant and easy to cultivate. The land-man ratio was highly favorable so that the supply of land resource was of an elastic nature. Given an abundant supply of land which was cheap, easy to acquire and cultivate, the Thai farmer responded along traditional lines through extension of cultivation to new areas. The resort to extensive cultivation was also facilitated by: (a) low money expenditure on cultivation, given simple tools and use of no fertilizer, and (b) incentive given by the government for developing new areas through tax concessions and exemptions.

The method adopted by the Thai farmer was the increase in the total volume of resources rather than making the given volume of resources more productive. Instead of making any revolutionary changes in his techniques which could have led to increase in productivity, he expanded his production through extension of cultivation using traditional methods of production. In other words, he adopted an expansion process which kept itself growing by drawing upon an increasing volume of hitherto unused or surplus resources to export production.

The above method inevitably led to the dispersal of production centers to farther and farther areas. The dispersed nature of the production points necessitated an efficient system of collection, milling and transportation of the produce to the port of embarkation for the export market. These functions are not only capital intensive but also subject to economies of scale and could not be performed by the farmer himself. As the production dispersed to distant areas, the role of

middlemen to carry out the above functions became increasingly important. The farmer in fact became heavily dependent upon the middlemen for sale of his produce. The crucial nature of his function in the export trade enabled the middlemen to appropriate a major proportion of the export price.

The spurt in demand for rice and the rapid extension of area under cultivation should have led to an increase in the demand for farm labor giving rise to an increase in the wage level in the agricultural sector. This increase in income of the labor engaged in cultivation could have changed the consumption pattern in the rural sector and given rise to a market for manufactured products thereby opening an important avenue for economic growth. But this opportunity was lost in Thailand. The reasons for this are not difficult to discern. Firstly, starting from 1850, the Corvee system was substantially eliminated by 1905. This movement toward personal freedom was an important accompaniment to the expansion of rice cultivation in Thailand. The elimination of the Corvee freed a significant amount of labor services which became available for hire or was devoted to the land of the cultivator himself. Their entry to the labor market swelled the ranks of farm labor and did not allow the wage level to increase substantially. Secondly, the size of the population in Thailand registered an increase and this also tended to restrict any sizeable increase in the farm wages.

Again, the growth of trade and commerce after 1850 led to an increase in demand for wage labor outside agriculture. Since rice cultivation was becoming more attractive, and since few Thais were willing to become wage laborers, wages tended to rise. Scarcity of labor and a persistent

tendency for wages to rise were features of the Thai economy from 1850 until the 1920's.

Had the scarcity of labor been allowed to continue, it is possible that wages might have risen enough to attract labor from agriculture. The high wages and loss of manpower in agriculture might in turn have induced farmers to use more capital and to improve their techniques. Similarly, the employers of labor in trade and industry might have been induced to develop methods of using labor sparingly. In this way, technical and organizational changes might have been drawn to other activities in which they could have achieved efficiency. More important, a rise in the wage level would have made the market somewhat elastic. And all these factors could have set in motion a cumulative process.

As it turned out, however, the scarcity of labor had other consequences. To meet the rising demand for wage labor, immigration of Chinese was not only permitted but deliberately encouraged from 1850 until 1930's. As the Thais were not interested in occupations other than rice cultivation, the demand for almost all wage labor outside of agriculture was filled largely with Chinese immigrants. As a consequence, the rise of wages did not go far enough to attract the Thais away from agriculture.

Another factor which kept the Thais away from commerce and wage labor was the clanishness of the Chinese immigrants. Not only did they form secret societies but also effectively combined to prevent the entry of an outsider into a trade, craft, line of business, or even a particular rice mill. Thus the large scale immigration of Chinese not only did not permit the wage level to increase substantially in nonagricultural

activities, but also prevented any substantial increase in farm wages which in turn prevented the market to become elastic.

Another important factor for the abortive growth of the Thai economy can be related to the pattern of income distribution that emerged from the production and export of rice. Now, although the Thais owned the land, all other functions connected with the export crop were in the hands of the middlemen, mostly the Chinese. Why did a large number of Chinese come to Thailand? The main reason is the geographical location of Thailand, far away from ocean highways with the result that it had to export bulk of her products to China. Thailand's was primarily a peasant economy and the people were unfamiliar with the art of commerce. A sudden emergence of Thai rice in the orbit of world trade created the need for such people who were long familiar with the methods of trading, transportation, etc. In South China, land concentration was very high so that for these people, good living was not to be on land but on trading, supplying credit, etc. On the other hand, for the Thais, the safe and easy method was rice cultivation. The Chinese were, therefore, best suited to play the role of middlemen in Thailand.

The Chinese performed crucial functions and acquired undisputed monopoly of Thai rice trade. Thus, they bought paddy from the grower, shipped it for sale to the miller, lended money, advanced supplies, sold imported merchandise, and transported goods in both directions. The hold that the Chinese had on the Thai economy is indicated by the fact that by 1942-45, nearly 90 percent of all the rice mills in the country were Chinese-owned. In fact, the Chinese middlemen practically controlled the whole of rice crop from the moment it left the farmer's hands. Through

these operations the Chinese were taking a large proportion of the profit in rice trade. The overall share of export proceeds accruing to them is difficult to estimate but it was doubtless quite substantial. The Thai Financial Adviser, one Mr. Doll, estimated in 1937 that about 50 percent of the export price of rice was required to be paid to the miller, the exporter and the middlemen and that, of all the intermediaries, those between the grower and the miller probably enjoyed the largest share.[4]

Given the above situation, the Thai farmer did not get his due share of the export price. He received only a small proportion which, after taking into account the cost of cultivation, left him more or less on a subsistence level of living. The Thai farmer had little money to invest for making permanent improvement in his land or for buying inputs for his annual production. For these he depended on the Chinese money lender, who charged exorbitant rates of interest. After meeting the cost of cultivation and fulfilling his obligations to the money lender, the Thai farmer was left with little or no resources. As a result he was too poor to live beyond subsistence level and his demand was limited to foodgrains, simple clothing and minimum of shelter. He had no funds to spare for any other products and could not provide a market for any manufactured products.

The Chinese appropriated bulk of the proceeds from the export trade. Most of the investible funds were concentrated in their hands and they constituted a prosperous community. However, they also did not constitute a market of any substantial size. Firstly, though prosperous, they were

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[4]Cf. James C. Ingram, op. cit., n. 1, p. 72.

used to a frugal standard of living. Secondly, the number of Chinese (and other foreigners) who controlled the various functions related to the export crop was relatively small. Their consumption pattern was such that it did not constitute effective demand for many manufactured products. Their demand was too small and for a variety of commodities which could best be met through imports.

Moreover, Thailand was isolated from the Western influence, being the only free country in Asia. It was under the zone of Chinese influence whose own standard of living was no better than the Thais. This meant that there was little or no beneficial impact on the "demonstration effect" of Western consumption on the size of market in Thailand. As a result, the demand for large manufactured products was more or less non-existent. That manufacturing activity was insignificant is evident from the fact that only 2.2 percent of the labor force was engaged in manufacture.

Another factor to be noted is that Thailand's was an open economy, with little or no tariffs on imports; the country was treaty bound not to levy import duty exceeding 3 percent which permitted almost free entry of imports. This situation implied that domestic producers were by and large at a disadvantage to foreign producers based on large markets of advanced countries,

In spite of a narrow and inelastic market in general, there were two commodities which were consumed by bulk of the population and were imported in large quantity, namely, cotton textiles and sugar. What accounted for the non-development of local industry and continued dependence on imports for these products? For textile industry, it is well known

that the cost of distribution should not be very high. In Thailand no textile industry was set up because the cost of textiles would have gone up on account of high transport cost particularly because no railroad network was available. As stated earlier, in Thailand land was abundant, almost free. As price of land went up, area under cultivation was gradually extended. As a consequence, the market was dispersed and carried away further afield. The cost of distribution was thus being raised by dispersion of the market.

The case of sugar imports makes an interesting study. In 1860, Thai sugar industry was able not only to meet the entire domestic requirements, but also export a substantial quantity abroad. The industry, however, collapsed in 1870 making it necessary for Thailand to import sugar. This abrupt change was brought about by: (i) low price at which Japanese and Philippines sugar was available; (ii) the unprotected Thai market; and (iii) the "chaotic" tax structure faced by the local industry. Although tax structure was fairly harsh, it was primarily the very low price of sugar which led the Thai farmer to shift from sugar to rice cultivation.[5] The process of substitution was greatly facilitated by a rise in the price of rice in the international market at a time when world sugar prices had registered a downward movement.

An important exception to the above thesis was the tin mining industry. The development of this industry in Thailand was analogous to the

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[5]The decline of the infant sugar industry in Thailand was probably closely connected with the subsidized development of beet sugar on the European continent which caused such a remarkable fall in the world sugar prices.

extractive export industries in other countries where such a development had important impact on the growth of the producing country. How is it then that tin mining in Thailand did not provide the "engine of growth"?

The reasons are not difficult to discern. Thai tin industry shares with some other underdeveloped countries the characteristics of being more closely integrated with the foreign market than with the rest of the Thai economy. Indeed, in the case of Thailand the separation of tin mining has been even more complete than in other countries where at least the bulk of the labor force is usually provided by the dominant ethnic community. Here, in Thailand, the Chinese labor force dominated the tin industry and represented until recently a truly non-competing force.

In addition to the above, the technological and locational characteristics of the tin mining industry did not permit it to become a leading sector. Firstly, the major uses of tin are as an alloy and the value of tin in relation to volume is high. As a result, the economics of tin use in manufacturing favors location based on the cost structure of the primary metal instead of the geographical tin sources. With most of the weight loss taking place during concentration and melting, it is the distribution of the market which governs the location of succeeding stages of metal fabrication. As a consequence, the resource does not induce location of any substantive amount of linked activities. Secondly, most of the tin mining in Thailand is located near the peninsula coast. The location of the industry near the cost prevented it from having any important growth inducing effects via associated facilities such as railroad network.

PART II - FRENCH INDO-CHINA

Introduction

Indo-China, to use the picturesque Chinese description, is a pole balanced by two baskets of rice; the pole being the Annamite mountain range which parallels the coast and the rice baskets being the two great deltas of the Mekong and Red rivers. It formed part of the region known as the "rice granary of the orient" and possessed valuable natural resources. Her coal resources, chiefly of high grade anthracite, had been estimated to total twenty billion tons. The region had large substantial tin deposits in Tonkin and Laos, and smaller amounts of iron ore, tungsten, manganese, antimony, zinc and lead. Agricultural raw materials included rubber, cotton, silk, vegetable oils and fibers, timber and a variety of other products.

It is well known that Indo-China was one of the most intensively exploited colonial areas in the world. But inspite of this and despite its rich natural resources, the great majority of Indo-Chinese population of some 23 million remained in a state of extreme poverty, dependents for their meager livelihood on rice growing and handicraft industries. This section seeks to analyze the factors which accounted for the abortive growth of Indo-China during the period of French oocupation.

Locational Disadvantage

At the outset, it is necessary to highlight the locational disadvantage of Indo-China. The Indo-Chinese peninsula appears to be admirably located for great maritime activity. It is near Thailand, Malaya, Singapore, the Philippines and the numerous smaller islands of

the Pacific. But, in reality, Indo-China was outside the then trade currents of Asia. This was because in the peninsula there was no international port comparable to Singapore and Hong Kong. As a result, vessels which passed through the corridor dividing Sumatra from Malacca touched at Singapore and thereafter went directly to Hong Kong, without touching at Saigon. The location of Indo-China ports, far away from the main trade routes then prevailing, meant additional transport cost for her export products, both in loading and unloading at, and the haulage cost to, a port on the main trade routes--Singapore or Hong Kong.

French Colonial Policy

An important factor which contributed to the abortive growth of Indo-China was the policy the French Government adopted towards the peninsula. In keeping with traditional French colonial policy, Indo-China was developed strictly as an appendage to the economy of the mother country. It was indeed an axiom of French colonial administration that a colony should confine itself to the production of raw materials and to the purchase of manufactured products from the metropolitan country. As Robequain aptly noted:

> "It has not been given to any colony to develop its industries freely; even the possibility of such development has always seemed paradoxical, almost inconceivable; Indo-China has not escaped this law."[6]

Why did the French insist on adopting this policy? To understand this it is necessary to study the world economic situation then prevailing.

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[6]Charles A. Robequain, The Economic Development of French Indo-China, Oxford University Press, 1944.

Firstly, in 1870's, when French control of Indo-China became effective, economic thinking in France had undergone radical transformation at the time. This was the moment when French heavy industry was getting a healthy head start. At the same time, colonial intervention was becoming increasingly common. French industrialists were worried; they feared over production and were looking for new markets. A close tariff union binding the colonies to the mother country seemed to offer a hopeful solution to the problem.

The trend toward protectionism was reinforced by the unpopularity of the colonial campaigns. Prominent businessmen demanded that the colonies should be reserved as an exclusive French market. Meline, Director of the Association of French Industry and Agriculture, declared that "within a sound colonial system, colonial production must be limited to supplying the mother country with raw materials or non-competititive products." He warned that "if colonial production were to step out of this field and offer competition to their own production, it would become a dangerous opponent." He went to the extent of proposing that French Parliament should establish colonial compensation licences which would be required of any industry set up in the colonies to compete with a similar industry in France.

Secondly, when the Indo-Chinese Union was established, European markets were becoming satiated while the United States and Germany were developing along protectionist lines. It was natural for France to go into a scheme of economic self-sufficiency, dependent upon her overseas possessions for raw materials as well as for marketing her manufactured products. France, however, faced a major problem regarding such a

colonial relationship as far as Indo-China was concerned. Indo-China was mainly a country of one culture--rice--which was not consumed extensively in France. And when significant quantitites of Indo-Chinese rice started entering the French market, local wheat growers stood firmly against it.

In order, therefore, to obtain satisfactory trade, it became necessary for the French to lay emphasis upon production of diversified commodities and cultures, for example, coal, tea, coffee, silk, rubber and maize. Decreasing population in France at the time made it difficult for Frenchmen to migrate in large numbers to the colony. The French felt, however, that there was no need to have a surplus population in order to colonize. They believed that an excess of capital would serve the same end. Colonization under this concept meant "spheres of influence and markets held to the mother-land by tariffs."

But the attainment of this objective depended upon the utilization of capital which would counteract the dearth of French colonists. In short, the Franc would bring into existence what the Frenchmen could not undertake. The attempt made to institute a system comparable to that of Belgian Congo, whereby foreign capitalists invest in commercial and industrial enterprise, was not successful in Indo-China because French capital was not attracted to the colonies. The cautious French investor preferred to purchase South African, Central American and Japanese bonds, instead of helping his compatriates in Indo-China. The French entrepreneurs in Indo-China were anxious to compensate for home indifference by enlisting financial aid of outside interests, especially American, to whom they offered direct trade and attractive tariff. But the French

Government was chary of foreign influence in the peninsula and failed to provide suitable regulation for the entrance of non-French capitalists. In spite of these limitations, certain sectors of the colonial economy were developed, the details of which are set out in the next section.

Pattern of Colonial Development

The pattern of economic development that unfolded in Indo-China was entirely in keeping with the French colonial policy outlined above. Thus, emphasis was laid on the development of such products which could neatly fit in the metropolitan economy, that is, the plantation crops and minerals to feed the French industry. The development of agriculture was also oriented primarily to suit the requirements of the mother country. A brief survey of the major fields of economic activity is outlined below:

(i) Plantations

Among the plantation crops, the development of rubber was claimed as the French planters' greatest success in Indo-China. This was made possible by a number of factors:

(a) The soil and climate in the colony was particularly suited to rubber plantation;

(b) The French planter, starting rather late, benefitted continually from the experiments of large neighboring producers in British Malaya and Netherlands Indies; and

(c) Since Indo-China was the only French colony where rubber cultivation was developed without exceeding mother country's demand, its development fitted neatly into the framework of the imperial economy.

As a result, production of rubber increased significantly from 298 tons in 1915 to 3,159 tons in 1919, 10,319 tons in 1929 and as high as 60,000 tons in 1938.

The other plantation crop where the French invested was coffee. On the whole, progress was very slow since total production from approximately 13,000 hectres was estimated at only 1,500 tons in 1937-38 session. This is remarkably low considering the half century of effort behind it. This may be attributed to:

(a) climatic factor; the blossoms were sometimes washed off by heavy rains, summer droughts or, in region near the sea, by typhoons;

(b) non-availability of fertilizer; the area under cultivation was limited by the number of cattle which would be needed to get animal manure. The size and quality of the pastures was often very low.

Tea and pepper were the other plantation crops which received the attention of the colonizers. But their progress was not marked with any significant results. The most important reason for this was that both capital and experience were lacking for the organization of these plantations on a scale large enough to be profitable. In fact, planters of these crops were using primitive methods which gave rise to low productivity and made these uneconomical.

(ii) Minerals

The extraction of anthracite coal, for which the peninsula had enormous resources, was by far the leading mining activity in Indo-China. Total production increased from 501,000 tons in 1913 to a record figure of 2,308,000 tons in 1937-38. The value of coal production to the total mining production in Indo-China varied from 89 percent in 1932 to 63 percent in 1937.

Among the metals, zinc and tin were far ahead of all others both in value and in continuity of extraction. Production was, however, not steady and varied according to the export market which in turn was

dependent on the world price of ore, freight rates, government support in the form of tariff protection or bounties, and on currency fluctuations. Statistics indicate that 1916 and 1926 were peak years, separated by deep depression which reached its lowest level in 1920 when Japanese metal industry ran in difficulties resulting from the loss of its Russian market after the Revolution. Zinc ore production dropped from 61,900 tons in 1926 to 10,600 tons in 1937.

Other useful minerals were only of minor significance in the total mineral production. These included wolfram, antimony, iron ore, manganese ore, gold, graphite, phosphate and precious stones. Although all these figured in the trade of Indo-China their contribution to total export earnings was by no means significant.

(iii) Agriculture

Rice cultivation has traditionally constituted the chief economic activity and the greatest source of wealth in Indo-China. Before the occupation of the peninsula by the French the Annamite Government, in oriental fashion, prohibited its exportation on the ground that by so doing a low price level would be maintained! This resulted in the farmers producing only enough for local consumption. As soon as the French administration became established, the export of rice was authorized. Swarms of Chinese entered the region where rice was grown, took control of its processing, trade and transport and shipped great quantities to China, the Philippines and India. The local farmers followed the example of the Chinese; in this they received increasing support from French investment and enterprise. As a result, acreage under rice cultivation and exports of rice increased quite significantly.

Rice in fact became the backbone of the country's economy, both as a staple food and the principal source of revenue, accounting for 40-45 percent of the total revenue of the export trade. The following table shows the relationship between the extension of the cultivated area, the increase in rice exports and the country's population:

TABLE IV

Increase in Areas Planted to Rice, Rice Exports and Population in Cochin China

	1880	1900	1937	Increase 1880 to 1937 (%)
Area, cultivated (in hectres)	522,000	1,175,000	2,200,000	421
Rice exports from Saigon (in tons)	284,000	747,000	1,584,000	545
Population of Cochin China	1,679,000	2,937,000	4,484,000	267

Source: Charles A. Robequain, The Economic Development of French Indo-China, Oxford University Press, 1944, Table 17, p. 220.

Before the advent of the French, rice cultivation in Indo-China was being carried out by small-holders, each cultivating his land with bulk of the production meant for family consumption. With the arrival of the French, the pattern of land-ownership underwent significant change. In the northern deltas, although the increase in population decreased the average size of landholdings, it did not affect all owners evenly. The new trade possibilities opened up by improvement in means of transportation and abundance of credit encouraged large estates. In Tonkin, large estates came into existence since the French occupation forced many farmers to become tenant farmers. According to a tentative

study reported by Robequain, in the Tonkin delta 61.6 percent of the landowners had less than one mau (.36 hectares) of land and another 30 percent had from one to five mau. The number of farmers without land or with less than five Sao (.18 hectares) was estimated by Gouron at 63 percent. These large estates were formed through the purchase of land which was forfeited from cultivators or on which loans at exorbitant interest rates had been made.

In Cochin China, large estates occupied an even more important position than in the northern deltas. The main factor responsible for this concentration of land ownership was the rapid extension of rice growing to vast regions which had previously been wastelands and were made cultivable by canal construction. In this region, Western techniques used on virgin soil with assured water supply produced quicker and more impressive results.

Again, in the Western provinces, land ownership was highly concentrated. Here the new lands were not brought into cultivation by small-scale native colonists. Since the construction of canals was expensive, the French sold the land to the highest bidders. As a result, it was not unusual in this region to own 500 or even 1,000 hectares of land. On this land, which was uninhabited, cultivation was by tenant farmer (ta diem) who paid a specified amount of paddy as rent each year. Often unstable and restless these farmers, lacking funds, borrowed both money and rice from the landlord who depended as much, if not more, on the interest from these loans as on the steady improvement of their rice fields. Usually, they lived far away from their land and often their

contact with the ta diem was made only through their managers (Cai). As Robequain pointed out, land ownership here was mainly speculative.

Apart from rice cultivation, a variety of other crops were raised. Area occupied by chief crops up to the end of 1930 was as under:

TABLE V

Indo-China, Area Under Chief Crops, 1930

Crop	Total Area (in hectares)
Rice	2,213,896
Rubber	84,000
Arecanut	26,988
Coconut	18,477
Sugarcane	10,839
Maize	10,908
Tobacco	2,702
Groundnuts	1,390
Coffee	658
Pepper	388
Tea	150

One of the more important products was the development of silk. Sericulture was first introducted in the peninsula by the Chinese in the tenth century A.D. But before the advent of the French, the raising of cacoons was undertaken in a haphazard manner by the farmers. The French, knowing that raw silk was needed at home applied latest techniques for its development and gave full administrative support to its encouragement. This made it possible to export large quantities of raw silk to feed the the local industry in France.

Factors Accounting for Abortive Growth

A close study of the pattern of economic development, under the auspices of French colonial policy, provides a clue to the abortive

growth of Indo-China. It is evident from the analysis presented on pages 22-27 that the bulk of the economic activity in Indo-China was concentrated in a few sectors, namely the plantation crops, exploitation of minerals and rice cultivation. The first two sectors were developed primarily for export markets in France and elsewhere. Now, the extent to which the export sector induces the development of other sectors of the economy depends upon the technological nature of the production function of the export commodity. In the plantation crop, the production function was such that the most efficient organization for any level of production was on a relatively labor-intensive basis. In other words, the commodity technologically required a relatively large number of laborers to perform comparatively simple tasks.

Moreover, there were significant increasing returns to scale in the cultivation and processing of the commodity. Consequently, comparatively large amounts of capital and labor were necessary for the most efficient size of the production unit. A high level of managerial and technical skill was also needed to direct large plantations effectively. In view of these requirements, people who owned the plantations were from higher income groups who possessed the funds or could borrow them in the capital market. And, in order to produce the commodity at the lowest possible costs, they created demand for the unskilled labor of a very low income group.

The above conditions did not give rise to induced economic growth in other sectors of the economy. The reasons for this can be studied from both demand and supply forces. First, in order to introduce domestic production of commodities for which an export market did not exist, there

must be internal demand for such products. This, a plantation economy based on export markets, did not provide. In the plantation economy one end of the scale was composed of a large number of unskilled labor with low income packets. Most of this group's effective demand consisted of a few basic foods, simple clothing and minimum shelter needs. They could not, therefore, provide a market for any manufactured products.

The effective demand for the higher class of consumer goods and services stemmed largely from the middle and high income groups who were composed of large plantation owners, those performing the marketing services associated with the export crop and, to some extent, the small planters/producers. Their consumption pattern was such that it did not constitute effective demand for any manufactured products. This is because the foreigners and other rich, who earned a sizeable proportion of the national income, were few in number and did not constitute mass market for a single product; their demand was for a large number of commodities.

Moreover, even the small market available was of an inelastic nature. It could not be enlarged by small fluctuation in price; a small fall in price could not make it accessible to any large number of people. In an open economy, this situation implied that domestic producers were by and large at a disadvantage to foreign producers based on large markets of advanced countries. Hence, local production of manufactured products was not possible, except for a few light consumer goods.

From the supply side also, one reaches the same conclusion. Here, the familiar theory is that of the vicious circle; the people are too poor to save and invest. But this does not explain the true picture.

As we have seen, in Indo-China there were some sections of the community who had incomes far above the subsistence level and yet did not invest in local industry.

The reason for this was that outside the export sector, there was no incentive to invest. To understand this it is necessary to see what the rich actually did with their surplus income. There was a tendency on the part of well-to-do classes to spend surplus income on luxury items, like jewelry, clothing, furniture, cars and so on. The surplus funds also went in hoards of currency and foreign exchange, in land and buildings and, finally, in lending at high rates for consumption purposes. All other uses of money should have given high rates of return before they could attract investment. By lending, the investors got high return on their capital and consequently they had not incentive to invest elsewhere. Again, since capital was available at high rates of interest even those who wanted to take the risk in new fields did not come forward; lure of high return kept the investible funds blocked in money lending business.

In the case of minerals also, the production function was more or less of the same type as that of the plantation economy. The exploitation of mines, as for a plantation crop, required a small group of owners and managers, on one end of the scale, while on the other side was a large group of unskilled laborers getting low wages and living on a subsistence level. Both these groups did not constitute any market for manufactured products for the same demand and supply forces as explained in detail for the plantation economy.

The most important sector of the Indo-Chinese economy was related to the production and export of rice. In spite of certain handicaps, rice acreage, production and export in Indo-China were marked with significant increase. In Cochin China alone, for which full data are available, over a period of 57 years (1880-1937) area under rice cultivation increased by 421 percent, and rice exports by 545 percent. During the same period, the population of Cochin China increased by only 267 percent. (For details, see Table IV). This indicates that the cultivation of rice generated surplus income in the region. How is it then that the population in the farming sector did not give rise to the demand for manufactured and other products which could lead to induced economic growth?

To understand this question, it is necessary to ascertain to whom the surplus income accrued. In Indo-China, before the advent of the French, land ownership was of a family type, each holding of a size sufficient to meet the family requirements. After the arrival of the French, an entirely different system of land ownership came into being. Given the prospect of export, rice cultivation was extended to areas not hitherto cultivated. The French invested in the development of land and in the construction of canals. The lands thus developed were sold to the highest bidders. These were rich landlords who cultivated the land with the help of tenant farmers. In other areas, the farmers who owned land were under heavy debt and were under the control of money-lenders. Many sold their lands to get out of their clutches, while land of others was confiscated by the money lenders.

Land ownership was thus largely in the hands of the few rich who enjoyed a luxurious life in the provincial town. Cultivation was done under the supervision of a manager (Cai) by a mass of farming community, largely the tenant farmers (ta diem). Given the structure of land ownership which was highly concentrated, bulk of the income earned was appropriated by the few, rich landlords. Their demand was for luxurious products; they tended to imitate the consumption habits of the alien rulers and met most of the requirements through imports. Apart from this, they spent money in residential buildings, jewelry and such other sterile investment. Most of them were money lenders and lent at high rates of interest. Others invested in stockpiling of rice and other mass consumption products and indulged in speculation, to the misery of the ta diem. Since the rate of return on these activities was high, they had no incentive to invest in other fields.

The tenant farmers were too poor to live beyond subsistence levels and their demand was limited to foodgrains, simple clothing and minimum of shelter. They had no funds to spare for any other products. As a result, neither the few rich landlords, nor the large mass of farming community constituted a market for manufactured products.

The Chinese, who performed the function of the middlemen and controlled the transport and marketing of the export products, also did not add to the size of the market. Their standard of living was not much higher than the natives. This gave them access to large savings but this did not find outlet to the industrial field. A good proportion of it was externalized to China and the balance used for lending at high interest rates to the cultivators. By doing so they not only

earned a high rate of return on their savings, but also exercised effective control on the production and marketing of rice.

CONCLUSION

In the two case studies, we have shown how the narrow and inelastic nature of the market did not permit transmission of growth impulses from the export sector to other parts of these economies. The study on Thailand reveals that, following a spurt of demand for rice in the world market, the agricultural economy generated investible surplus which was sufficient to finance a rapid growth in income comparable to that discernible in other countries with high saving ratio. However, up to the end of World War II, Thailand remained a backward economy. The main factor to which the abortive growth of Thailand may be attributed is the small and inelastic structure of the Thai market. This market stagnation, in turn, is traceable not only to the low level of per capita income but to the pattern of income distribution and its lack of the middle class. The income distribution, in turn, is attributable to the abundant and elastic land resource endowment in Thailand.

The study of the colonial economy of French Indo-China brings out a number of interesting points. It spells out the genesis of the French economic policy towards its colonies and explains how Indo-China was developed strictly as an appendage to the economy of metropolitan France. The colonial pattern of development was primarily devoted to plantation crops and mining. The technical nature of the production function in both these (economic) activities required, on one end of the scale, a small number of planters/mine owners and on the other a large number of

unskilled laborers. This led to a pattern of income distribution which was highly skewed and perpetuated the stagnant nature of the market. In the development and export of rice too the same pattern of income distribution emerged between the landlords (most of whom combined the functions of money lenders) and the large mass of farming community. Moreover, Indo-China had very little impact of the demonstration effect of the consumption behavior of the Western world since very few Frenchmen came to live here. And the large influx of Chinese and a gradual increase of population prevented the rise in wage levels following expansion of export activity. As a result, despite its rich mineral resources, favorable land-man ratio, and a regular excess of exports over imports, the growth of the Indo-Chinese colony remained abortive.